

<b>X18B SAFETY CHECKLIST</b>			BROOKHAVEN NATIONAL LABORATORY NATIONAL SYNCHROTRON LIGHT SOURCE
<b>Rev: A</b>	<b>Effective: 5/15/04</b>	<b>Page 1 of 1</b>	Number: LS-SCL-0042
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Original signatures on file.

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1. Valid padlock Index and log, no padlocks open.

**FOR ITEMS 2 TO 5 GO TO THE X17 SIDE AND START AT THE FRONT OF BEAM LINE.**

2. Scatter shield covering beampipe as in photo 1.  
 3. Scatter shield covering the fixed aperture and banded as in photo 1.  
 4. Bremsstrahlung shield (BS #1) in place and banded as in photo 1.  
 5. Scatter shield upstream of ion gauge as in photo 1.

**FOR ITEMS 6 TO 26 GO ON THE X19 SIDE OF BEAMLINE AND START UPSTREAM**

6. Scatter shield downstream of ion gauge as in photo 2.  
 7. Exclusion Zone (EZ #1) in place and banded around Water cooled Beryllium window #1 as in photo 2.  
 8. Scatter shield covering Vacuum Bellows #1 as in photo 2.  
 9. Bremsstrahlung shield (BS # 2) in place and banded as in photo 2.  
 10. Exclusion Zone (EZ #2) in place and banded as in photo 2.  
 11. Exclusion Zone (EZ #3) in place and banded as in photo 3.  
 12. Exclusion Zone (EZ #4) in place and banded as in photo 3.  
 13. Bremsstrahlung shield (BS # 3) in place and banded as in photo 3.  
 14. Vacuum Bellows #2 wrapped in lead and banded as in photo 3.  
 15. Viewport covered with leaded Plexiglas and banded as in photo 4.  
 16. Lead Exclusion Zone (EZ #5) in place and banded as in photo 4.  
 17. Bremsstrahlung shield (BS #4) in place and banded as in photo 4.  
 18. Vacuum Bellows #3 wrapped in lead and banded. With scatter shield around beampipe as in photo 4.  
 19. Lead Exclusion Zone (EZ #6) in place and banded as in photo 4.  
 20. Lead Exclusion Zone (EZ #7) in place and banded as in photo 5.  
 21. Bremsstrahlung shield (BS #5) in place and banded as in photo 5.  
 22. Water cooled Beryllium window #2, Slits, Vacuum Bellows #4 wrapped in lead and banded as in photo 5.  
 23. Scatter shield covering the Monochromator, Viewport on monochromator chamber covered with leaded Plexiglas as in photo 6.  
 24. Scatter shield on cross, beampipe, Vacuum Bellows #5 as in photo 6.  
 25. Bremsstrahlung shield (BS #6) (for photon shutter) in place and banded as in photo 7.  
 26. Bremsstrahlung shield (BS #7) between the hutch and photon shutter in place and banded as in photo 7.

**ITEM 27 IS INSIDE OF THE X18B HUTCH**

27. Beam stop inside the hutch in place and secured as in photo 8.

Checked by: \_\_\_\_\_ Date: \_\_\_\_\_

OPCO: \_\_\_\_\_ Date: \_\_\_\_\_